

IN THE CLAIMS:

1. (Original) A head stack assembly for a disk drive having a disk, the head stack assembly comprising:

a body portion;

an actuator arm cantilevered from the body portion;

a hinge, a first surface of the hinge being coupled to the actuator arm;

a load beam having a first end and a second end, the first end being attached to a second surface of the hinge, the second surface facing away from the first surface;

a gimbal coupled to the second end of the load beam, and

a slider coupled to the gimbal.

2. (Original) The head stack assembly of Claim 1, further including a mount plate attached to the actuator arm, the hinge being coupled to the actuator arm via the mount plate, the mount plate having a thickness that is greater than 0.22 mm.

3. (Original) The head stack assembly of Claim 1, wherein the hinge has a thickness that is greater than 0.05 mm.

4. (Original) The head stack assembly of Claim 1, wherein the load beam has a thickness that is greater than 0.12 mm.

5. (Original) The head stack assembly of Claim 1, wherein the hinge includes a radius geometry that defines a first radius of curvature, a second radius of curvature and a third radius of curvature, the first radius being closer to the mount plate than the second radius, the

second radius being closer to the mount plate than the third radius, and wherein the third radius is greater than the second radius.

6. (Original) A disk drive, comprising:

a disk having a recording surface;

a head stack assembly, including:

a body portion;

an actuator arm cantilevered from the body portion;

a hinge, a first surface of the hinge being coupled to the actuator arm;

a load beam having a first end and a second end, the first end being attached to a second surface of the hinge, the second surface facing away from the first surface;

a gimbal coupled to the second end of the load beam, and

a slider coupled to the gimbal.

7. (Original) The disk drive of Claim 6, further including a mount plate attached to the actuator arm, the hinge being coupled to the actuator arm via the mount plate, the mount plate having a thickness that is greater than 0.22 mm.

8. (Original) The disk drive of Claim 6, wherein the hinge has a thickness that is greater than 0.05 mm.

9. (Original) The disk drive of Claim 6, wherein the load beam has a thickness that is greater than 0.12 mm.

10. (Original) The disk drive of Claim 6, wherein the hinge includes a radius geometry that defines a first radius of curvature, a second radius of curvature and a third radius

of curvature, the first radius being closer to the mount plate than the second radius, the second radius being closer to the mount plate than the third radius, and wherein the third radius is greater than the second radius.

11. (Original) A head gimbal assembly for a head stack assembly of a disk drive, the head stack assembly including a body portion, an actuator arm cantilevered from the body portion, the disk drive having a disk, comprising:

- a hinge, a first surface of the hinge being coupled to the actuator arm;
- a load beam having a first end and a second end, the first end being attached to a second surface of the hinge, the second surface facing away from the first surface;
- a gimbal coupled to the second end of the load beam, and
- a slider coupled to the gimbal.

12. (Original) The head gimbal assembly of Claim 11, wherein the hinge has a thickness that is greater than 0.05 mm.

13. (Original) The head gimbal assembly of Claim 11, wherein the load beam has a thickness that is greater than 0.12 mm.

14. (Original) The head gimbal assembly of Claim 11, wherein the hinge includes a radius geometry that defines a first radius of curvature, a second radius of curvature and a third radius of curvature, the first radius being closer to the mount plate than the second radius, the second radius being closer to the mount plate than the third radius, and wherein the third radius is greater than the second radius.

15. (Original) A suspension for a head stack assembly of a disk drive, the head stack assembly including an actuator arm and a mount plate, the suspension comprising:

a hinge, a first surface of the hinge for coupling to the actuator arm;
a load beam having a first end and a second end, the first end being attached to a second surface of the hinge, the second surface facing away from the first surface, and
a gimbal coupled to the second end of the load beam.

16. (Original) The suspension of Claim 15, wherein the hinge has a thickness that is greater than 0.05 mm.

17. (Original) The suspension of Claim 15, wherein the load beam has a thickness that is greater than 0.12 mm.

18. (Original) The suspension of Claim 15, wherein the hinge includes a radius geometry that defines a first radius of curvature, a second radius of curvature and a third radius of curvature, the first radius being closer to the mount plate than the second radius, the second radius being closer to the mount plate than the third radius, and wherein the third radius is greater than the second radius.

19. (Currently Amended) A suspension for a head stack assembly of a disk drive, the head stack assembly including an actuator arm and a mount plate, the disk drive having a disk, the suspension comprising:

a load beam having a first end and a second end, the first end defining an integral hinge portion, the hinge portion defining a radius geometry that includes at least two radii of curvatures configured to lower load beam toward the disk such that the hinge portion defines at least one

concave portion and at least one convex portion, a first surface of the hinge portion for coupling to the actuator arm, and

a gimbal coupled to the second end of the load beam.

20. (Original) The suspension of Claim 19, wherein the hinge potion has a thickness that is greater than 0.05 mm.

21. (Original) The suspension of Claim 19, wherein the load beam has a thickness that is greater than 0.12 mm.

22. (Original) The suspension of Claim 19, wherein the radius geometry includes a first radius of curvature, a second radius of curvature and a third radius of curvature, the first radius being closer to the mount plate than the second radius, the second radius being closer to the mount plate than the third radius, and wherein the third radius is greater than the second radius.

23. (Currently Amended) A head gimbal assembly for a head stack assembly of a disk drive, the head stack assembly including a body portion, an actuator arm cantilevered from the body portion, the disk drive having a disk, the head gimbal assembly comprising:

a load beam having a first end and a second end, the first end defining an integral hinge portion, the hinge portion defining a radius geometry that includes at least two radii of curvatures configured to lower load beam toward the disk such that the hinge portion defines at least one concave portion and at least one convex portion, a first surface of the hinge portion being coupled to the actuator arm;

a gimbal coupled to the second end of the load beam, and

a slider coupled to the gimbal.

24. (Original) The head gimbal assembly of Claim 23, wherein the hinge has a thickness that is greater than 0.05 mm.

25. (Original) The head gimbal assembly of Claim 23, wherein the load beam has a thickness that is greater than 0.12 mm.

26. (Original) The head gimbal assembly of Claim 23, wherein the radius geometry includes a first radius of curvature, a second radius of curvature and a third radius of curvature, the first radius being closer to the mount plate than the second radius, the second radius being closer to the mount plate than the third radius, and wherein the third radius is greater than the second radius.

27. (Currently Amended) A head stack assembly for a disk drive having a disk, the head stack assembly comprising:

a body portion;

an actuator arm cantilevered from the body portion;

a load beam having a first end and a second end, the first end defining an integral hinge portion, the hinge portion defining a radius geometry that includes at least two radii of curvatures configured to lower load beam toward the disk such that the hinge portion defines at least one concave portion and at least one convex portion, a first surface of the hinge portion being coupled to the actuator arm;

a gimbal coupled to the second end of the load beam, and

a slider coupled to the gimbal.

28. (Original) The head stack assembly of Claim 26, further including a mount plate attached to the actuator arm, the hinge being coupled to the actuator arm via the mount plate, the mount plate having a thickness that is greater than 0.22 mm.

29. (Original) The head stack assembly of Claim 27, wherein the hinge has a thickness that is greater than 0.05 mm.

30. (Original) The head stack assembly of Claim 27, wherein the load beam has a thickness that is greater than 0.12 mm.

31. (Original) The head stack assembly of Claim 27, wherein the radius geometry includes a first radius of curvature, a second radius of curvature and a third radius of curvature, the first radius being closer to the mount plate than the second radius, the second radius being closer to the mount plate than the third radius, and wherein the third radius is greater than the second radius.

32. (Currently Amended) A disk drive, comprising:

- a disk having a recording surface;
- a head stack assembly, including:
 - a body portion;
 - an actuator arm cantilevered from the body portion;
 - a load beam having a first end and a second end, the first end defining an integral hinge portion, the hinge portion defining a radius geometry that includes at least two radii of curvatures configured to lower load beam toward the disk such that the hinge portion defines at least one concave portion and at least one convex portion, a first surface of the hinge portion being coupled to the actuator arm;

a gimbal coupled to the second end of the load beam, and
a slider coupled to the gimbal.

33. (Original) The disk drive of Claim 32, further including a mount plate attached to the actuator arm, the hinge being coupled to the actuator arm via the mount plate, the mount plate having a thickness that is greater than 0.22 mm.

34. (Original) The disk drive of Claim 32, wherein the hinge has a thickness that is greater than 0.05 mm.

35. (Original) The disk drive of Claim 32, wherein the load beam has a thickness that is greater than 0.12 mm.

36. (Original) The disk drive of Claim 32, wherein the radius geometry includes a first radius of curvature, a second radius of curvature and a third radius of curvature, the first radius being closer to the mount plate than the second radius, the second radius being closer to the mount plate than the third radius, and wherein the third radius is greater than the second radius.

37. (Currently Amended) A head stack assembly for a disk drive having a disk, the head stack assembly comprising:

a body portion;
an actuator arm cantilevered from the body portion;
a hinge defining a radius geometry, the radius geometry including at least two radii of curvatures such that the hinge defines at least one concave portion and at least one convex portion, the hinge being coupled to the actuator arm;

a load beam having a first end and a second end, the first end being coupled to the hinge;
a gimbal coupled to the second end of the load beam, and
a slider coupled to the gimbal.

38. **(Original)** The head stack assembly of Claim 37, further including a mount plate attached to the actuator arm, the hinge being coupled to the actuator arm via the mount plate, the mount plate having a thickness that is greater than 0.22 mm.

39. **(Original)** The head stack assembly of Claim 37, wherein the hinge has a thickness that is greater than 0.05 mm.

40. **(Original)** The head stack assembly of Claim 37, wherein the load beam has a thickness that is greater than 0.12 mm.

41. **(Original)** The head stack assembly of Claim 37, wherein the radius geometry includes a first radius of curvature, a second radius of curvature and a third radius of curvature, the first radius being closer to the mount plate than the second radius, the second radius being closer to the mount plate than the third radius, and wherein the third radius is greater than the second radius.

42. **(Currently Amended)** A disk drive, comprising:

a disk having a recording surface;
a head stack assembly, including:
a body portion;
an actuator arm cantilevered from the body portion;

a hinge defining a radius geometry, the radius geometry including at least two radii of curvatures such that the hinge defines at least one concave portion and at least one convex portion, the hinge being coupled to the actuator arm;

a load beam having a first end and a second end, the first end being coupled to the hinge;

a gimbal coupled to the second end of the load beam, and

a slider coupled to the gimbal.

43. (Original) The disk drive of Claim 42, further including a mount plate attached to the actuator arm, the hinge being coupled to the actuator arm via the mount plate, the mount plate having a thickness that is greater than 0.22 mm.

44. (Original) The disk drive of Claim 42, wherein the hinge has a thickness that is greater than 0.05 mm.

45. (Original) The disk drive of Claim 42, wherein the load beam has a thickness that is greater than 0.12 mm.

46. (Original) The disk drive of Claim 42, wherein the radius geometry includes a first radius of curvature, a second radius of curvature and a third radius of curvature, the first radius being closer to the mount plate than the second radius, the second radius being closer to the mount plate than the third radius, and wherein the third radius is greater than the second radius.

47. **(Currently Amended)** A head gimbal assembly for a head stack assembly of a disk drive, the head stack assembly including a body portion, an actuator arm cantilevered from the body portion, the disk drive having a disk, the head gimbal assembly comprising:

a hinge defining a radius geometry, the radius geometry including at least two radii of curvatures such that the hinge defines at least one concave portion and at least one convex portion, the hinge being coupled to the actuator arm;

a load beam having a first end and a second end, the first end being coupled to the hinge;

a gimbal coupled to the second end of the load beam, and

a slider coupled to the gimbal.

48. **(Original)** The head gimbal assembly of Claim 47, wherein the hinge has a thickness that is greater than 0.05 mm.

49. **(Original)** The head gimbal assembly of Claim 47, wherein the load beam has a thickness that is greater than 0.12 mm.

50. **(Original)** The head gimbal assembly of Claim 47, wherein the radius geometry includes a first radius of curvature, a second radius of curvature and a third radius of curvature, the first radius being closer to the mount plate than the second radius, the second radius being closer to the mount plate than the third radius, and wherein the third radius is greater than the second radius.

51. **(Currently Amended)** A suspension for a head stack assembly of a disk drive, the head stack assembly including an actuator arm and a mount plate, the disk drive having a disk, the suspension comprising:

a hinge defining a radius geometry, the radius geometry including at least two radii of curvatures such that the hinge defines at least one concave portion and at least one convex portion, the hinge for coupling to the actuator arm;

a load beam having a first end and a second end, the first end being coupled to the hinge, and

a gimbal coupled to the second end of the load beam.

52. (Original) The suspension of Claim 51, wherein the hinge has a thickness that is greater than 0.05 mm.

53. (Original) The suspension of Claim 51, wherein the load beam has a thickness that is greater than 0.12 mm.

54. (Original) The suspension of Claim 51, wherein the radius geometry includes a first radius of curvature, a second radius of curvature and a third radius of curvature, the first radius being closer to the mount plate than the second radius, the second radius being closer to the mount plate than the third radius, and wherein the third radius is greater than the second radius.